Report Overview
Global environment: slight slowdown in 2018 expansion

- **Global growth estimates of 3.7% y/y** in 2018 vs. 3.8% in 2017.
- Prospect for **annual growth of 3.5% y/y** in 2019 (slowdown)
  - **Stimulus in 2018** from US growth and high liquidity globally
  - **Downside risks** from escalation of trade protectionism, slowdown in China and Europe, instability in emerging markets (Argentina, Turkey)

- **Significant Eurozone growth deceleration** in 2018, to 1.8%, from 2.4% in 2017 and prospect for further slowdown in 2019 (1.6%)
  - **Positive impact** from historically highest liquidity and the lowest unemployment rate in the last decade
  - **Negative impact** from worsening expectations (uncertainty over Brexit) and a slowdown in exports (trade protectionism measures)
Global environment: risks halting growth momentum

Globally

- US: tax reform effect in decline
- Trade protectionism:
  - Positive latest development: the temporary truce between China and the USA
- Further slowdown in China from credit tightening
- Problems caused by natural disasters in Japan
- High public debt in advanced economies and high private debt in emerging economies

Eurozone

- Brexit: high uncertainty about an agreement with the EU, due to proposed deal’s rejection by the UK parliament
- Euro-skepticism in member states (e.g. Italy) ➔ Need for deepening of EMU institutions
- End of expansion of the “Quantitative Easing” (Q-E) program
GDP growth acceleration in the third quarter of 2018

2018 Q3: +2.2% y/y, versus +1.7% in 2018 Q2 and 2.0% in 2017 Q3

Jan.- Sep. 2018: +2.1% y/y, versus +1.2% a year ago

Main trends in GDP components:

• External sector deficit decrease by €2.2 bn (-47.2%)
  o Continued exports expansion (8.3% y/y), through a rise in both goods’ exports (+8.6% y/y) and services exports (+8.3% y/y)
  o Minor increase in imports by 3.1% y/y, following an increase of 8.0% y/y a year ago, almost exclusively as a result of higher imports of services (+14.6%)

• Slight increase in investments by 1.5%, vs. an increase of 7.4% in 2017
  o Impact exclusively from a different, strong trend in inventories in Q3 compared to a year ago. Fixed capital formation continued to decline sharply (-23.2% y/y) ➔-6.2% y/y in the three first quarters of 2018 as a whole
  o Rise of investments in machinery-defense equipment, ICT and Residence

• Continued expansion of private consumption, albeit at a slower pace
  o +0.7% in Q3 2018, +0.9% since the beginning of 2018
State budget execution marginally below targets

- **Jan.-Dec. 2018 cash balance outturn:** deficit €2.32 bn, versus deficit target of €1.91 bn
- **Primary surplus of €3.24 bn,** versus target of €3.61 bn, but also last year’s outturn of €1.94 bn

- **Targets’ under performance** stemming from:
  - Lower State budget revenues
    - Lower Public Investment Program revenues by €1.22 bn (-31.5% against target)
    - Lower net revenues in the Ordinary Budget (-€267 mn)
      - Less privatizations (-€1.13bn), but also smaller tax refunds (-€962 mn)
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- **Expenditure containment** in the State Budget
  - Under-execution of the Public Investment Program (-€513 mn) for one more year, due to revenues shortcomings
  - Restrain of primary expenditure by €603 mn
The planned (MTFS 2019-2022) pension cuts, budgeted €2.07bn were not implemented.

Countermeasures of €1.73bn for low or no income households (rent subsidies, family allowances redesign, child allowance, active employment policies, medical contributions subsidies) were not materialized.

- From a social policy perspective, it is not certain that the non implementation of countermeasures has lower impact from the pension cuts.
- Instead, measures from the alternative scenario of the Draft Budget were implemented, with minor changes (ENFIA tax revenues decline by 10%, cuts in self-employed social security contributions, subsidy to young employees (up to 25 years of age) contributions, etc.).

Negative fiscal impact from the non implemented measures under MTFS 2019-2022 and new measures: €1.25 bn.

Revision of General Government Primary Surplus in 2019: €6.75 billion (3.6% of GDP) in 2019, against €7.52 billion (3.96% of GDP) in the MTFS 2019-2022.
Restoring investment confidence is proved to be a lengthy and gradual process

- Portugal: 3.5 years before rebounding to investment grade
- Cyprus: average rating still marginally below investment grade, after almost 3 years

Greece => necessary to insist on reform policies, in order to gain confidence

- Remains on average 4.3 notches below investment grade
- Partial debt refinancing from markets will most likely be necessary, before recovery of investment grade rating
**Industrial Production**

- Minor increase 1.1% y/y in industrial production during Jan.-Nov. 2018, lower than the one registered at the same period of 2017 (+4.6%)

**Construction**

- Minor decrease (-0.2% y/y) in construction activity during Jan. – Sept. 2018, compared to a decrease of 10.9% at the same period of 2017
- Exclusively stemming from civil engineering works. Escalation of building activity (foreign investments in real estate, renovations)
- Increase of building permits in Sept.-Oct. 2018 by 15.5% y/y, vs. 10% in 2017

**Tourism sector**

- New record in the turnover index during the summer months
- Acceleration during Jan. – Sept. 2018 compared to 2017: +12.5% y/y versus +10.4%

**Retail trade**

- New expansion during Jan.-Oct. 2018, similar to that in 2017 (1.4% y/y vs 1.6% a year ago)
Economic sentiment deterioration in Q4 2018, improvement compared to Q4 2017
Overall in 2018, better expectations compared to 2017 (+4pt)

Economic Sentiment Index

Sources: IOBE, European Commission
Significant recovery of consumer confidence in Q4 2018, at a level as in Q4 2009. Overall important increase in 2018 (+11pt)

Consumer Confidence

Sources: IOBE, European Commission
Continued decline of the unemployment rate

Number of unemployed persons and unemployment rate in Greece

- **Unemployment rate** of 18.3% in 2018 Q3, from 20.2% in 2017 Q3.
- **Employment increase in 14 sectors.** *Indicatively:* Agriculture-Forestry-Fishing (+20.3 thous.), Wholesale-Retail trade (+19.8 thous.), Tourism (+12.4 thous.), Information and Communication (+10.8 thous.), Education (+10.7 thous.)
- **Employment drop in 8 sectors.** *Indicatively:* Administrative and support activities (-6.0 thous.), Construction (-5.2 thous.), Financial and insurance activities (-5.0 thous.)

Source: ELSTAT
Increase of s.a. wage cost index for third consecutive quarter

- Rise of the index by 4.7% y/y in Q3 2018, following a y/y rise by 2.7% in Q2 2018 and 4.9% in Q1 2018
- Close to Q4 2012 levels

Source: Eurostat
Widening Current Account deficit in Jan. –Nov. 2018, at €3.8 billion versus €1.7 billion in 2017, with increasing borrowing needs

- Deficit increase by €2.5 billion in the balance of goods and €920 million in the primary income
- Partially offset by a services balance improvement by €1.3 billion
- Increases in tourism proceeds by 9.7% y/y and transportation revenues by 14.7% y/y

Source: BoG
Products with the largest contribution to export growth during Jan.-Oct. 2015-2018

- Pharmaceutical products and preparations: +€342 million (+40%)
- Aluminum: + €294 million (+25%)
- Basic iron and steel: + €231 million (+100%)
- Computers and peripheral equipment: + €212 million (+53%)
- Ornamental and building stone: + €135 million (+123%)

Sources: ELSTAT, Eurostat
Inflation deceleration compared to 2017

**Eurozone:** Inflation acceleration to 1.7% in 2018

**Greece (2018):** CPI based inflation rate of 0.6%, versus +1.1% in 2017: Milder inflationary pressure by indirect taxes and energy goods, recovery of domestic demand – other components, for the first time since 2011

Producer Price Index (2018): +4.7% y/y versus +5.6% in 2017, due to new increase of energy prices

Sources: ELSTAT, Eurostat
**Important drivers of HICP evolution, 2010 – 2018:**

- Primarily driven by the indirect taxation hike throughout period, except in 2015
- Fluctuations of energy goods prices, except in 2013 and 2016
- Domestic demand and other factors had a smaller impact on headline price trend

Source: Eurostat
Various approaches in the post-program era

In relation to:

- Assessment of changes in fiscal policy
- Expectations vis-à-vis the forthcoming electoral cycle
- Impact from changes in the labor market (minimum wage, extension of collective agreements)
- Dependence on the drastically changing international environment
- Impact from developments in the banking system (NPE management)
Improvement in households’ expectations:

- Changes to 2019 fiscal measures (cancelation of pension cuts, further tax discounts, social security contribution reduction, hiring) ➞ signs of economic policy autonomy
- Payment of social dividend, retroactive transfers to special wage grids (both in 2018 and 2019)
- NPE write-offs
- Increase in the minimum wage – abolition of the youth sub-minimum wage
- Pre-electoral period (e.g. social security debt settlement schemes, measures for illegal buildings in forest areas)

Despite the removal of capital controls for domestic transactions, the recovery of private deposits, mainly by households, was halted during September-October 2018
Changing environment for entrepreneurship

- Despite the write-offs and sales of NPEs, banks’ credit contraction continues, domestic stock market remains bearish ➔ tight credit conditions
- Increase in the minimum wage – extension of collective agreements
- Pre-electoral inertia among firms
- Deteriorating global environment (decelerating Eurozone and China)

*But at the same time:*

- Gradual (slow) reduction in the corporate income tax rates by 1 ppt per year over four years
- Gradual (slow) reduction in the distributed profit tax rates by 1 ppt per year over five years
- Subsidy by 50% of employers’ s.s. contribution for young employees
- Further, significant boost in international tourism during 2018
- Steady recovery of building activity during Jan.-Oct. 2018
Focus on the effective reduction of NPEs, without repercussions on fundamentals

- Reduction of NPE is achievable so far, but mainly through write-offs and sales, having negative impact on financial statements
- Limited progress with respect to out-of-court workout and e-auctions
- Pause in the recovery trend of private deposits
- Significant challenges stemming from the revised strategies for NPE reduction and new targets until 2021
  - Plans by the HFSF and the Bank of Greece
  - Different strategies among bank institutions
  - Need for focus on the qualitative characteristics of NPE reduction (e.g. liquidations, collections)
- Expectation for no change in the trend of credit supply, at least in the first half of 2019, and possibly for the year as a whole
Small boost on liquidity – investments from the public sector

- **Mild contribution from PIP for one more year**
  - 2018 spending slightly above 2017, €6.23 billion versus €5.95 billion. However, based on further back-loaded disbursements.
  - Downward revision of the PIP by €550 million for this year, again circa €6.75 billion, in order to implement new measures.
    - A quicker execution this year is feasible

- **Low clearance of outstanding arrears to private sector firms**
  - Payments around €837.9 million during March-October, although €1.25 billion were made available for this purpose until August. Around €430 million unused.
    - *Reduction of outstanding arrears by €805 million, however €2.62 billion still pending*
  - The 2019 State budget neither specifies the timing for their clearance, nor includes targets for the current year
Forecasts 2018

• **Increase of private consumption (≈ 0.9% y/y):**
  - Acceleration of increase in Q4 due to stronger household expectations, disbursement of social dividend and retroactive payments for special wage grids

• **Decrease of public consumption (≈ -2.0%)**
  - Despite the large drop during Jan.-Sept., expecting an increase in Q4 from retroactive payments for special wage grids

• **Mild increase of investment (≈ 4.5%):**
  - Mainly due to different trend in inventories. Marginal drop in GFCF.
  - Rise of investments in machinery-equipment, from exporting manufactures, as well as in building activity (foreigners investing in real estate, building refurbishments for rental)
  - More back-loaded execution of PIP than in 2017, but progress with privatizations

• **Increase of exports (≈ 7.7%):** Slightly smaller at the end of 2018, due to Euro Area deceleration. Positive impact from lower EUR/USD exchange rate

• **Increase of imports (≈ 4.0%):** Supported during Q4 by stronger consumer demand for goods and services (incl. travel)
Unchanged GDP forecast for 2018

Growth rate this year around 2.0%

Drop in unemployment throughout 2018

- Boosting effects from stronger household consumption in Q4, including on Retail-Wholesale trade
- Strong increase of temporary employment in the public sector through OAED programs, up until the first semester of the current year
- Employment increase de-escalates in Tourism

Average unemployment rate around 19.5%
Forecasts 2019

Acceleration of private consumption (≈ +1.4% y/y):

• Mainly due to changes in fiscal policy (no further pension cut, higher social spending, tax reliefs)
• Uncertain net impact from minimum wage increase, linked with sectoral developments in productivity
• Falling positive impact from exports on employment-income, offset by employment boost in the public sector and Constructions

Expansion of public consumption (≈ +2.0%)

• Disbursement of larger retroactive payments this year
• Impact from consecutive elections

Investment escalation (>+10%):

• Increased activity in privatizations-concessions
• Stronger construction activity and faster execution of the Public Investment Program
• Higher exploitation of capital markets funding instruments
• But also: credit contraction and firms in pre-electoral “wait-and-see” attitude
Forecasts 2019

Milder exports increase (5.0%-5.5% y/y)

- Impact from trade protectionism measures, deteriorating QE impact on Eurozone demand, recovery of competitive tourism destinations

Escalation of import demand (6.0%-6.5% y/y)

- Due to higher consumption and investment recovery

Slowing decline of unemployment, slightly below 18.0%

- More employment positions in public sector, trade and construction

Similar to last year price level increase (≈ 0.6% - 0.8%)

- Mostly driven by recovery of private consumption, mild oil price increase, while neither new indirect taxes were imposed, nor existing ones were increased

Growth rate for 2019 in the area of 2.0%, possibly higher
Crisis, demographic changes and impact on education
Study plan

Scope of the study

1. Examining the changes in the fundamentals of the education system after the start of the crisis
2. Analysis of the impact of demographic changes on the functioning of the education system

Contents

1. Evolution of the main figures and indicators of the education system
2. Impact of demographic trends on the main education system figures in the coming years
3. Policy suggestions
Increase of all teaching staff after EMU membership. Significant reduction after the burst of the crisis.

The total number of Primary and Secondary Education teaching staff increased from 145 thousand in 2000 to 180.3 thousand in 2010 (+ 24.3%). In 2014 it was limited to 152.2 thousand (-15.6%).
Despite recent adjustment, student-teacher ratios in Greece are smaller compared to the EU, the OECD and G-20.

In all the levels of Primary and Secondary education, the ratio of pupils per teacher is intertemporarily the lowest.
The number of school units declined slowly in the period prior to the crisis, and accelerated after 2009.

The number of schools decreased from 15,714 in 2000 to 15,547 in 2009 (-1.1%). In the context of streamlining public expenditure after the crisis, school units declined to 13,870 in 2015 (-10.8%).
The most significant implication of the crisis is the reduction of the student population.

Total number of pupils declined from 1.53 million in 2000 to 1.49 million in 2009 (-3.1%) and 1.44 million in 2016 (-5.9% as compared to 2000)
Assumptions and scenario about the projections of educational system figures

**Scenario about projections for main education figures**

- **Inertia**
  - No policy interventions concerning the educational system

- **Adjustment**
  - Policy interventions aimed at preserving the indicators for the functioning of the education system at their current level

- **Convergence to EU average**
  - Policy interventions aiming at converging core operational indicators with the corresponding EU averages

**Main assumptions**

1. The evolution of the number of pupils follows the projection of Eurostat for the evolution of population for the period 2015-2035
2. Fixed (low) leakage rate from (low) compulsory education
3. Fixed participation rate of pupils in education after completing the compulsory cycle (9 years)
If no radical changes take place, the number of students will drop significantly by 2035.

The total number of students will drop from 1.48 million in 2008 to about 1.05 million by 2035 (-29.2% or 432.3 thousand less students).
Consequences of adjusting student population to the number of schools (adaptation scenario)

The total number of schools may decline to 10.7 thousand in 2035 from 15.5 thousand in 2008 (down by 30.8% or 4.8 thousand units)
Teacher drop in the adjustment scenario in 2035 compared to 2009 by 38.7%; 55.2% in the convergence scenario.

In the adjustment scenario, the number of teachers will decline from 180.3 thousand in 2009 to 110.5 thousand in 2035.

In the convergence to EU scenario, decline from 180.3 thousand in 2009 to 80.7 thousand in 2035.
Policy intervention proposals

• Emphasizing the treatment of sub birth as a top national priority and formulating a long-term strategy for multilateral family support

• Improvement of the management of educational staff, of school infrastructure network and the school curriculum

• Restructuring of tertiary education, shaping of a long-term strategy and preparation for the forthcoming reduction in the number of domestic students

• Development of a long-term national strategy for education, with concrete objectives. Focus on timely preparation and effective response of the demographic impacts and the upcoming shock from shrinking of the education system, involving local government, social partners and civil society (e.g. parent clubs) in shaping and implementing it.
Thank you for your attention!

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